

REMARKS

In this office action the Examiner objected to the drawings under 37 CFR 1.83(a). The Examiner stated, "The drawings must show every feature of the invention specified in the claims. Therefore, the "at least one brake means" first claimed in lines 2-3 of claim 1 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance."

Applicant is submitting a new Figure 13 for the Examiner's approval which shows the "at least one brake means". No new matter has been entered. Therefore, Applicant respectfully requests that the Examiner withdraw the objection to the drawings.

In the office action the Examiner rejected claims 1, 4, 5, 14, and 15 under 35 U.S.C. 103(a) as being unpatentable over US Patent 5566795 to Barefoot in view of US Patent 3937295 to Wright. To support the rejection the Examiner stated,

"Re: claims 1, 14, and 15. Barefoot shows in figure 1,4, and 7 an apparatus engageable with a brake assembly for automatically applying at least one brake means secured to a railway vehicle with the brake assembly, the apparatus comprising: an operating means 60,62,64,76,72,78,80_having at least one gear 64, the at least one gear being engageable with at

least one gear 66 of a gear assembly disposed in the brake assembly for operating the gear assembly in a direction which will cause an application of the at least one brake means, a source of fluid pressure 74 connected to the operating means for periodically supplying a predetermined pressure to the operating means at least sufficient to cause such application of the at least one brake means, a means 84 connected to the source of fluid pressure for initiating a supply of the predetermined pressure to the operating means thereby causing an automatic application of the at least one brake means by the brake assembly, and a timing means 82 connected intermediate the operating means and the source of fluid pressure for controlling the predetermined pressure being periodically supplied to the operating means. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the at least one gear of the gear assembly of Barefoot to have been disposed in a housing member of the hand brake assembly, as taught by Wright, in order to provide a means of shielding the gear from debris.

Re: claims 4 and 5. Barefoot shows in figure 7 the limitation wherein the operating means includes at least one valve means 78,80 for connecting the source of fluid pressure to the operating means."

Applicant has amended claims 1, 4, 5, 14, and 15 and removed all reference to "at least one brake means". The claims are drawn to a hand brake assembly.

Barefoot states in the background of his invention where he is describing the pneumatic prior art braking systems that, "Also, the train air braking system is typically supplemented with a hand brake system. A hand brake is provided for each car for supplying a braking force for parking the rail cars or stopping the cars when the air source from the locomotive is not available." (Column 2, lines 26-30). (Underlining is for emphasis).

Barefoot's invention is drawn to, "providing a braking system for a rail car. The braking system includes a hydraulic pump in operative association with an axle and/or wheel assembly of a rail car such that the hydraulic pump is driven by the axle when the axle is rotating. A hydraulic fluid circulation loop is placed in communication with the hydraulic pump for supplying, receiving and circulating an hydraulic fluid to and from the pump. The braking system further includes fluid restrictive means positioned within the circulation loop for regulating the flow of hydraulic fluid to and from the pump, wherein by restricting the flow of fluid from the pump, the pump exerts a braking force on the axle of for slowing and stopping a moving rail car." (Col. 3, lines 45-57).

Wright teaches "An object of the present invention is to provide an improved brake control apparatus for assuring the vehicle brakes are engaged in the off position of the vehicle ignition switch and disengaged in the on position of the vehicle ignition switch in a more efficient and economical manner".

(Column 1, lines 50-55). The hand brake of a rail car is not connected to any ignition switch since there are no ignition switches on rail cars.

Unlike the present invention which is drawn to a hand brake assembly, the teaching of Barefoot is for a hydraulic braking system for a rail car and not for a hand brake while Wright's brake control system is for a completely different application.

Therefore Applicant respectfully requests that the Examiner withdraw the rejection of claims 1, 4, 5, 14, and 15 under 35 U.S.C. 103(a) as being unpatentable over US Patent 5566795 to Barefoot in view of US Patent 3937295 to Wright.

Further, the Examiner rejected claim 3 under 35 U.S.C. 103(a) as being unpatentable over Barefoot in view of US Patent 3937295 to Wright as applied to claim 1 and further in view of US Patent 4978178 to Engle. The Examiner stated,

"Engle '178 teaches in figure 1 the use of an overload protection means 15 connected to operating means. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the apparatus of Barefoot, as modified, to have included an overload protection means, as taught by Engle, in order to prevent the occurrence of excessive brake application forces."

Applicant has stated previously that the present invention is drawn to a hand brake assembly whereas the teaching of Barefoot is for a hydraulic braking system for a rail car and not for a hand brake and Wright's braking system is for a completely

different application. Therefore, Applicant respectfully requests that the Examiner withdraw the rejection of claim 3 under 35 U.S.C. 103(a) as being unpatentable over Barefoot in view of US Patent 3937295 to Wright as applied to claim 1 and further in view of US Patent 4978178 to Engle.

The Examiner rejected claims 6 and 7 under 35 U.S.C. 103(a) as being unpatentable over Barefoot in view of US Patent 3937295 to Wright as applied to claim 1 and further in view of US Patent 5884985 to Ganzel et al. The Examiner stated,

"Ganzel et al. teach in col. 3 lines 31-33 the use of a plurality of hydraulic valves with venting means connecting the source of fluid pressure to the operating means. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the valves of Barefoot, as modified, to have included venting means, as taught by Ganzel et al., in order to provide an exhaust means to relieve pressure build up in the valves."

Applicant has stated previously that the present invention is drawn to a hand brake assembly whereas the teaching of Barefoot is for a hydraulic braking system for a rail car and not for a hand brake and Wright's braking system is for a completely different application. Therefore, Applicant respectfully requests that the Examiner withdraw the rejection of claims 6 and 7 under 35 U.S.C. 103(a) as being unpatentable over Barefoot in view of US Patent 3937295 to Wright as applied to claim 1 and further in view of US Patent 5884985 to Ganzel et al.

The Examiner rejected claim 8 under 35 U.S.C. 103(a) as being unpatentable over Barefoot in view of US Patent 3937295 to Wright and US Patent 5884985 to Ganzel et al. as applied to claim 7, and further in view of US Patent 4934214 to Otte. The Examiner stated, "Barefoot, as modified, shows a motor 60, but does not disclose the specific makeup of the motor. Otte teaches in figure 1 the use of motor 100 including a piston member 9 connected via duct 2 to a source of fluid pressure. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the motor of Barefoot, as modified, to have included a piston member, as taught by Otte, in order to provide a means to actuate the motor and consequently the connecting gear assembly."

Applicant has stated previously that the present invention is drawn to a hand brake assembly whereas the teaching of Barefoot is for a hydraulic braking system for a rail car and not for a hand brake and Wright's braking system is for a completely different application. Therefore, Applicant respectfully requests that the Examiner withdraw the rejection of claim 8 under 35 U.S.C. 103(a) as being unpatentable over Barefoot in view of US Patent 3937295 to Wright and US Patent 5884985 to Ganzel et al. as applied to claim 7, and further in view of US Patent 4934214 to Otte.

The Examiner rejected claims 12 and 13 under 35 U.S.C. 103(a) as being unpatentable over Barefoot in view of US Patent 3937295 to Wright as applied to claim 1 and further in view of US

Patent 5813731 to Newman, II et al. The Examiner stated, "Newman, II et al. teach in figure 4 the use of a push button 250 as a manual means of brake application. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the pressure initiating means of the apparatus Barefoot, to have included a push button, as taught by Newman, II et al., in order to provide a manual means of initiating the supply of pressure."

Applicant has stated previously that the present invention is drawn to a hand brake assembly whereas the teaching of Barefoot is for a hydraulic braking system for a rail car and not for a hand brake and Wright's braking system is for a completely different application. Therefore, Applicant respectfully requests that the Examiner withdraw the rejection of claims 12 and 13 under 35 U.S.C. 103(a) as being unpatentable over Barefoot in view of US Patent 3937295 to Wright as applied to claim 1 and further in view of US Patent 5813731 to Newman, II et al.

The Examiner rejected claim 16 under 35 U.S.C. 103(a) as being unpatentable over Barefoot in view of Wright and Engle as applied to claim 3 above, and further in view of WIPO 98/28174 (Corresponding to U.S. Patent 6186602 to Jonner et al. for column and line numbers). The Examiner stated, "WIPO 98/28174 teaches the use of an overload protection means in the form of a pressure regulating means in col. 1 lines 55-56. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the overload protection

means of Barefoot, as modified, to have included a pressure regulating means, as taught by WIPO 98/28174, in order to provide a means of preventing the occurrence of excessive brake application forces."

The Examiner rejected claim 17 under 35 U.S.C. 103(a) as being unpatentable over Barefoot in view of US Patent 3937295 to Wright as applied to claim 1 and further in view of US Patent 3782785 to Budzich. The Examiner stated, "Budzich teaches the use of a slip clutch to serve as an overload protection means in lines 12-14 of the abstract. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the apparatus of Barefoot to have included a slip clutch, as taught by Budzich, in order to provide a means of preventing the occurrence of excessive brake application forces."

Applicant has stated previously that the present invention is drawn to a hand brake assembly whereas the teaching of Barefoot is for a hydraulic braking system for a rail car and not for a hand brake and Wright's braking system is for a completely different application. Therefore, Applicant respectfully requests that the Examiner withdraw the rejection of claim 16 under 35 U.S.C. 103(a) as being unpatentable over Barefoot in view of Wright and Engle as applied to claim 3 above, and further in view of WIPO 98/28174 (Corresponding to U.S. Patent 6186602 to Jonner et al. for column and line numbers) and claim 17 under 35 U.S.C. 103(a) as being unpatentable over Barefoot in view of US

Patent 3937295 to Wright as applied to claim 1 and further in view of US Patent 3782785 to Budzich.

The Examiner rejected claims 18, 26, and 27 under 35 U.S.C. 103(a) as being unpatentable over Barefoot in view of US Patent 3937295 to Wright in view of Engle '178. the Examiner stated, "Barefoot shows in figure 1, 4, and 7 an apparatus engageable with a brake assembly for automatically applying at least one brake means secured to a railway vehicle with the brake assembly, the apparatus comprising: an operating means 60, 62, 64, 76, 72, 78, 80 having at least one gear 64, the at least one gear being engageable with at least one gear 66 of a gear assembly disposed in the brake assembly for operating the gear assembly in a direction which will cause an application of the at least one brake means, a source of fluid pressure 74 connected to the operating means for periodically supplying a predetermined pressure to the operating means at least sufficient to cause such application of the at least one brake means, a means 84 connected to the source of fluid pressure for initiating a supply of the predetermined pressure to the operating means thereby causing an automatic application of the at least one brake means by the brake assembly, and a timing means 82 connected intermediate the operating means and the source of fluid pressure for controlling the predetermined pressure being periodically supplied to the operating means. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the at least one gear of the gear assembly of Barefoot

to have been disposed in a housing member of the hand brake assembly, as taught by Wright, in order to provide a means of shielding the gear from debris.

Engle '178 teaches in figure 1 the use of an overload protection means 15 connected to the operating means. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the apparatus of Barefoot, as modified, to have included an overload protection means, as taught by Engle, in order to prevent the occurrence of excessive brake application forces."

Applicant has amended claim 18, 26 and 27 to remove all reference to "at least one brake means". The invention is drawn to a hand brake assembly.

Barefoot's invention is drawn to, "providing a braking system for a rail car. The braking system includes a hydraulic pump in operative association with an axle and/or wheel assembly of a rail car such that the hydraulic pump is driven by the axle when the axle is rotating. A hydraulic fluid circulation loop is placed in communication with the hydraulic pump for supplying, receiving and circulating an hydraulic fluid to and from the pump. The braking system further includes fluid restrictive means positioned within the circulation loop for regulating the flow of hydraulic fluid to and from the pump, wherein by restricting the flow of fluid from the pump, the pump exerts a braking force on the axle of for slowing and stopping a moving rail car." (Col. 3, lines 45-57).

Wright teaches "An object of the present invention is to provide an improved brake control apparatus for assuring the vehicle brakes are engaged in the off position of the vehicle ignition switch and disengaged in the on position of the vehicle ignition switch in a more efficient and economical manner". (Column 1, lines 50-55).

Unlike the present invention which is drawn to a hand brake assembly, the teaching of Barefoot is for a hydraulic braking system for a rail car and not for a hand brake while Wright's brake control system is for a completely different application.

Therefore Applicant respectfully requests that the Examiner withdraw the rejection of claims 18, 26, and 27 under 35 U.S.C. 103(a) as being unpatentable over Barefoot in view of US Patent 3937295 to Wright in view of Engle '178.

The Examiner rejected claims 19, 20, and 21 under 35 U.S.C. 103(a) as being unpatentable over Barefoot in view of US Patent 3937295 to Wright in view of Engle '178 as applied to claim 18, and further in view of Ganzel et al. and Otte. The Examiner stated, "Barefoot shows in figure 7 the use of at least one valve means 78,80 connecting the source of fluid pressure to the operating means. Ganzel et al. teach in col. 3 lines 31-33 the use of a plurality of hydraulic valves with venting means connecting the source of fluid pressure to the operating means. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the valves of Barefoot, as modified, to have included venting means, as taught

by Ganzel et al., in order to provide an exhaust means to relieve pressure build up in the valves. Barefoot, as modified, shows a motor 60, but does not disclose the specific makeup of the motor. Otte teaches in figure 1 the use of motor 100 including a piston member 9 connected via duct 2 to a source of fluid pressure. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the motor of Barefoot, as modified, to have included a piston member, as taught by Otte, in order to provide a means to actuate the motor and consequently the connecting gear assembly."

Applicant believes that if it requires five different prior art references that one of ordinary skill in the art would not find that it is obvious to have modified the invention of Barefoot with the valve means, the venting means and the piston member disclosed in the other prior art. Further the present application is drawn to a hand brake assembly which is not taught by Barefoot. Therefore, Applicant respectfully requests that the Examiner withdraw the rejection of claims 19, 20, and 21 under 35 U.S.C. 103(a) as being unpatentable over Barefoot in view of US Patent 3937295 to Wright in view of Engle '178 as applied to claim 18, and further in view of Ganzel et al. and Otte.

The Examiner then rejected claims 23 and 24 under 35 U.S.C. 103(a) as being unpatentable over Barefoot in view of US Patent 3937295 to Wright in view of Engle '178 as applied" to claim 18 above, and further in view of Kanjo et al. '363. The Examiner stated,

"Re: claim 23. In lines 9-11 of the abstract Kanjo et al. '363 teach the use of pneumatic source of fluid pressure. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the apparatus and a hand brake assembly of Barefoot, as modified, to have included a pneumatic source of fluid pressure, as taught by Kanjo et al. '363, in order to provide an alternate source of driving the brake application.

Re: claim 24. Kanjo et al. '363 teach in figure 21 the use of a timing means in the form of a reservoir and a choke valve 311, 326 connected intermediate the operating means and source of fluid pressure. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the timing means of Barefoot to have been constructed in the form of a reservoir and a choke valve as taught by Kanjo et al. in order to provide an alternate means of controlling pressure being supplied to the operating means."

Applicant has stated previously that the present invention is drawn to a hand brake assembly whereas the teaching of Barefoot is for a hydraulic braking system for a rail car and not for a hand brake and Wright's braking system is for a completely different application. Therefore, Applicant respectfully requests that the Examiner withdraw the rejection of claims 23 and 24 under 35 U.S.C. 103(a) as being unpatentable over Barefoot in view of US Patent 3937295 to Wright in view of Engle '178 as

applied" to claim 18 above, and further in view of Kanjo et al. '363.

The Examiner rejected claim 25 under 35 U.S.C. 103(a) as being unpatentable over Barefoot in view of US Patent 3937295 to Wright in view of Engle '178 as applied to claim 18 above, and further in view of Newman, II et al. The Examiner stated, "Newman, II et al. teach in figure 4 the use of a push button 250 as a manual means of brake application. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the pressure initiating means of the apparatus Barefoot, to have included a push button, as taught by Newman, II et al., in order to provide a manual means of initiating the supply of pressure."

The Examiner also rejected claim 28 under 35 U.S.C. 103(a) as being unpatentable over Barefoot in view of US Patent 3937295 to Wright in view of Engle '178 as applied to claim 18 above, and further in view of WIPO 98/28174 (Corresponding to U.S. Patent 6186602 to Jonner et al. for column and line numbers). The Examiner stated, "WIPO 98/28174 teaches the use of an overload protection means in the form of a pressure regulating means in col. 1 lines 55- 56. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the overload protection means of Barefoot, as modified, to have included a pressure regulating means, as taught by WIPO 98/28174, in order to provide a means of preventing the occurrence of excessive brake application forces."

The Examiner rejected claim 28 (probably should be claim 29) under 35 U.S.C. 103(a) as being unpatentable over Barefoot in view of US Patent 3937295 to Wright in view of Engle '178 as applied to claim 18 above, and further in view of Budzich. The examiner stated, "Budzich teaches the use of a slip clutch to serve as an overload protection means in lines 12-14 of the abstract. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have I modified the apparatus of Barefoot to have included a slip clutch, as taught by Budzich, in order to provide a means of preventing the occurrence of excessive brake application forces."

Applicant has stated previously that the present invention is drawn to a hand brake assembly whereas the teaching of Barefoot is for a hydraulic braking system for a rail car and not for a hand brake and Wright's braking system is for a completely different application. Therefore, Applicant respectfully requests that the Examiner withdraw the rejection of claim 25 under 35 U.S.C. 103(a) as being unpatentable over Barefoot in view of US Patent 3937295 to Wright in view of Engle '178 as applied to claim 18 above, and further in view of Newman, II et al., claim 28 under 35 U.S.C. 103(a) as being unpatentable over Barefoot in view of US Patent 3937295 to Wright in view of Engle '178 as applied to claim 18 above, and further in view of WIPO 98/28174 (Corresponding to U.S. Patent 6186602 to Jonner et al. for column and line numbers) and claim 29 under 35 U.S.C. 103(a) as being unpatentable over Barefoot in view of US Patent 3937295

to Wright in view of Engle '178 as applied to claim 18 above, and further in view of Budzich.

The Examiner rejected claim 30 under 35 U.S.C. 103(a) as being unpatentable over US Patent 3937295 to Wright in view of Engle '178. The Examiner stated, "Wright shows in figures 1 and 2 an electrically operated apparatus 26,84,32,30 engageable with a hand brake assembly 24,42,62,68,16 for automatically electrically applying at least one brake means 18 secured to a vehicle with the hand brake assembly, the electrically operated apparatus comprising: (a) a motor means 26 having a rotatable shaft 30 carrying a gear member or superficial teeth or threads thereon, the gear member engageable with at least one gear 42 of a gear assembly disposed in a housing member 24 of the hand brake assembly for operating the gear assembly in a direction which will cause an application of the at least one brake means; and (b) a means 84 connected to the motor for starting the motor and thereby initiating an automatic electrical application of the at least one brake means by the hand brake assembly, but does not disclose that the vehicle is specifically a railway vehicle. Engle teaches the use of an apparatus engageable with a hand brake assembly particularly of a railway vehicle in col. 1 lines 8-9. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the vehicle of Wright to have included a railway vehicle, as taught by Engle, in order to provide a means of automatically decelerating a railway vehicle. (Examiner notes that the

Dictionary of Mechanical Engineering, 3rd Edition, 1985 defines a gear as "any mechanical system for transmitting motion)."

Applicant has amended claim 30 and removed all reference to "at least one brake means". The claims are drawn to a hand brake assembly.

Barefoot states in the background of his invention where he is describing the pneumatic prior art braking systems that, "Also, the train air braking system is typically supplemented with a hand brake system. A hand brake is provided for each car for supplying a braking force for parking the rail cars or stopping the cars when the air source from the locomotive is not available." (Column 2, lines 26-30).

Barefoot's invention is drawn to, "providing a braking system for a rail car. The braking system includes a hydraulic pump in operative association with an axle and/or wheel assembly of a rail car such that the hydraulic pump is driven by the axle when the axle is rotating. A hydraulic fluid circulation loop is placed in communication with the hydraulic pump for supplying, receiving and circulating an hydraulic fluid to and from the pump. The braking system further includes fluid restrictive means positioned within the circulation loop for regulating the flow of hydraulic fluid to and from the pump, wherein by restricting the flow of fluid from the pump, the pump exerts a braking force on the axle of for slowing and stopping a moving rail car." (Col. 3, lines 45-57).

Wright teaches "An object of the present invention is to provide an improved brake control apparatus for assuring the vehicle brakes are engaged in the off position of the vehicle ignition switch and disengaged in the on position of the vehicle ignition switch in a more efficient and economical manner". (Column 1, lines 50-55). The hand brake of a rail car is not connected to any ignition switch since there are no ignition switches on rail cars.

Unlike the present invention which is drawn to a hand brake assembly, the teaching of Barefoot is for a hydraulic braking system for a rail car and not for a hand brake while Wright's brake control system is for a completely different application since there are no ignition switches on rail cars.


Therefore, Applicant respectfully requests that the Examiner withdraw the rejection of claim 30 under 35 U.S.C. 103(a) as being unpatentable over US Patent 3937295 to Wright in view of Engle '178.

In view of the amendment to the claims and the discussion supra, it is believed that the invention as described in claims 1 and 3-30 is patentable and that this application is now in condition for allowance and such allowance by the Examiner is respectfully requested.

In the event the Examiner has further difficulties with the examination and/or allowance of the application, the Examiner is invited to contact the undersigned agent for applicant by telephone at (412) 380-0725, if necessary, to resolve any

remaining questions or issues by interview and/or Examiner's
Amendment as to any matter.

Respectfully submitted,
James Ray and Associates

By 
Amos Bartoli
Registration No. 42,299
Agent for Applicant

JAMES RAY & ASSOCIATES
2640 Pitcairn Road
Monroeville, PA 15146
Tel. (412) 380-0725
Fax (412) 380-0748

Appendix A

On page 10, line 1 please enter the following:

Figure 13 is a front elevation view of a hand brake assembly incorporating a portion of a presently preferred embodiment of the automatic application hand brake of the invention showing a connection on at least one brake means.

On page 10, line 15, please amend the paragraph as indicated:

Refer now, more particularly, to Figures 1 through 6 and Figure 13 of the drawings. Illustrated therein is an apparatus, generally designated 10, which is engageable with a hand brake assembly, generally designated 20, for automatically applying at least one brake means (not shown --in Figures 1-6--) secured to a railway vehicle (not shown) with such hand brake assembly 20. Figure 13 is similar to Figure 1 showing a hand brake assembly 20 incorporating a portion of a presently preferred embodiment of the automatic application hand brake of the invention showing a connection on at least one brake means, generally designated 200.

In the claims:

Please amend the claims as indicated:

3
D
86E) 1. (Amended) A [An apparatus engageable with a] hand brake assembly [for automatically applying at least one brake means secured to] engageable with a railway vehicle [with such hand brake assembly], said [apparatus] hand brake assembly comprising:

(a) an operating means having at least a portion thereof engageable with at least one gear of a gear assembly disposed in a housing member of [such] said hand brake assembly for operating [such] said gear assembly in [a] an application direction [which will cause an application of such at least one brake means];

(b) a source of fluid pressure connected to said operating means for periodically supplying a predetermined pressure to said operating means at least sufficient to cause movement in such application direction of [such] said at least one gear of said gear assembly [brake means]; and

(c) a means connected to said source of fluid pressure for initiating said supply of said predetermined pressure to said operating means thereby causing an automatic movement of said gear assembly in such application direction [of such at least one brake means] by [such] said hand brake assembly.

2. (Amended) [An apparatus for automatically applying at least one brake means secured to a railway vehicle with a] A hand brake assembly, according to claim 1, wherein said [apparatus] hand brake assembly further includes a timing means

connected intermediate said operating means and said source of fluid pressure for controlling said predetermined pressure being periodically supplied to said operating means.

3. (Amended) [An apparatus for automatically applying at least one brake means secured to a railway vehicle with a] A hand brake assembly, according to claim 1, wherein said [apparatus] hand bake assembly further includes an overload protection means connected to one of said source of fluid pressure and said operating means for preventing an overload [on such at least one brake means].

4. (Amended) [An apparatus for automatically applying at least one brake means secured to a railway vehicle with a] A hand brake assembly, according to claim 1, wherein said operating means includes at least one valve means for connecting said source of fluid pressure to said operating means.

5. (Amended) [An apparatus for automatically applying at least one brake means secured to a railway vehicle with a] A hand brake assembly, according to claim 4, wherein said operating means includes a plurality of valve means for connecting said source of fluid pressure to said operating means.

6. (Amended) [An apparatus for automatically applying at least one brake means secured to a railway vehicle with a] A hand

brake assembly, according to claim 4, wherein said [apparatus] hand brake assembly further includes means for venting said fluid pressure from said at least one valve means.

7. (Amended) [An apparatus for automatically applying at least one brake means secured to a railway vehicle with a] A hand brake assembly, according to claim 5, wherein said [apparatus] hand brake assembly further includes means for venting said fluid pressure from said plurality of valve means.

8. (Amended) [An apparatus for automatically applying at least one brake means secured to a railway vehicle with a] A hand brake assembly, according to claim 7, wherein said operating means includes a piston member connected to said source of fluid pressure.

9. (Amended) [An apparatus for automatically applying at least one brake means secured to a railway vehicle with a] A hand brake assembly, according to claim 8, wherein said [apparatus] hand brake assembly further includes a valve shifting means, a first portion of said valve shifting means is connected to said piston member and a second portion of said valve shifting means is connected to at least one of said plurality of valve means.

10. (Amended) [An apparatus for automatically applying at least one brake means secured to a railway vehicle with a] A hand

brake assembly, according to claim 2, wherein said source of fluid pressure is pneumatic.

11. (Amended) [An apparatus for automatically applying at least one brake means secured to a railway vehicle with a] A hand brake assembly, according to claim 10, wherein said timing means includes a choke and a reservoir.

12. (Amended) [An apparatus for automatically applying at least one brake means secured to a railway vehicle with a] A hand brake assembly, according to claim 1, wherein said means for initiating said supply of said predetermined pressure to said operating means is one of a push button and a signal communicated to said means for initiating said supply of said predetermined pressure.

13. (Amended) [An apparatus for automatically applying at least one brake means secured to a railway vehicle with a] A hand brake assembly, according to claim 1, wherein said means for initiating said supply of said predetermined pressure to said operating means is a push button.

14. (Amended) [An apparatus for automatically applying at least one brake means secured to a railway vehicle with a] A hand brake assembly, according to claim 1, wherein said means for initiating said supply of said predetermined pressure to said

operating means is a signal communicated to said means for initiating said supply of said predetermined pressure by one of a radio frequency signal and an electrical signal.

cont.
E1
15. (Amended) [An apparatus for automatically applying at least one brake means secured to a railway vehicle with a] A hand brake assembly, according to claim 14, wherein said signal for initiating said supply of said predetermined pressure to said operating means is said electrical signal.

D3
16. (Amended) [An apparatus for automatically applying at least one brake means secured to a railway vehicle with a] A hand brake assembly, according to claim 3, wherein said overload protection means includes a pressure regulating means.

17. (Amended) [An apparatus for automatically applying at least one brake means secured to a railway vehicle with a] A hand brake assembly, according to claim 1, wherein said [apparatus] hand brake assembly further includes a slip clutch connected to said operating means to provide an overload protection means for said operating means.

18. (Amended) A [An apparatus engageable with a] hand brake assembly [for automatically applying at least one brake means secured to] engageable with a railway vehicle [with such hand brake assembly], said [apparatus] hand brake assembly comprising:

(a) an operating means having at least a portion thereof engageable with at least one gear of a gear assembly disposed in a housing member of [such] said hand brake assembly for operating [such] said gear assembly in [a] an application direction [which will cause an application of such at least one brake means];

cont
E1
D3
(b) a source of fluid pressure connected to said operating means for periodically supplying a predetermined pressure to said operating means at least sufficient to cause movement in such application direction of [such] said at least one gear of said gear assembly [brake means];

(c) a means connected to said source of fluid pressure for initiating said supply of said predetermined pressure to said operating means thereby causing an automatic movement of said gear assembly in such application direction [of such at least one brake means] by [such] said hand brake assembly;

(d) a timing means connected intermediate said operating means and said source of fluid pressure for controlling said predetermined pressure being periodically supplied to said operating means; and

(e) an overload protection means connected to one of said source of fluid pressure and said operating means for preventing an overload[on such at least one brake means].

19. (Amended) [An apparatus for automatically applying at least one brake means secured to a railway vehicle with a] A hand

brake assembly, according to claim 18, wherein said operating means includes:

(a) at least one valve means for connecting said source of fluid pressure to said operating means;

(b) means for venting said fluid pressure from said at least one valve means; and

(c) a piston member connected to said source of fluid pressure.

20. (Amended) [An apparatus for automatically applying at least one brake means secured to a railway vehicle with a] A hand brake assembly, according to claim 19, wherein said operating means includes a plurality of valve means for connecting said source of fluid pressure to said operating means.

21. (Amended) [An apparatus for automatically applying at least one brake means secured to a railway vehicle with a] A hand brake assembly, according to claim 20, wherein said [apparatus] hand brake assembly further includes means for venting said fluid pressure from said plurality of valve means.

22. (Amended) [An apparatus for automatically applying at least one brake means secured to a railway vehicle with a] A hand brake assembly, according to claim 21, wherein said [apparatus] hand brake assembly further includes a valve shifting means, a first portion of said valve shifting means is connected to said

piston member and a second portion of said valve shifting means is connected to at least one of said plurality of valve means.

cont.
C1
23. (Amended) [An apparatus for automatically applying at least one brake means secured to a railway vehicle with a] A hand brake assembly, according to claim 18, wherein said source of fluid pressure is pneumatic.

3
D
24. (Amended) [An apparatus for automatically applying at least one brake means secured to a railway vehicle with a] A hand brake assembly, according to claim 23, wherein said timing means includes a choke and a reservoir.

25. (Amended) [An apparatus for automatically applying at least one brake means secured to a railway vehicle with a] A hand brake assembly, according to claim 18, wherein said means for initiating said supply of said predetermined pressure to said operating means is a push button.

26. (Amended) [An apparatus for automatically applying at least one brake means secured to a railway vehicle with a] A hand brake assembly, according to claim 18, wherein said means for initiating said supply of said predetermined pressure to said operating means is a signal communicated to said means for initiating said supply of said predetermined pressure by one of a radio frequency signal and an electrical signal.

27. (Amended) [An apparatus for automatically applying at least one brake means secured to a railway vehicle with a] A hand brake assembly, according to claim 26, wherein said signal for initiating said supply of said predetermined pressure to said operating means is said electrical signal.

28. (Amended) [An apparatus for automatically applying at least one brake means secured to a railway vehicle with a] A hand brake assembly, according to claim 18, wherein said overload protection means includes a pressure regulating means.

29. (Amended) [An apparatus for automatically applying at least one brake means secured to a railway vehicle with a] A hand brake assembly, according to claim 18, wherein said [apparatus] hand brake assembly further includes a slip clutch connected to said operating means to provide said overload protection means for said operating means.

30. (Amended) A [An apparatus engageable with a] hand brake assembly [for automatically applying at least one brake means secured to] engageable with a railway vehicle [with such hand brake assembly], said [apparatus] hand brake assembly comprising:

(a) a motor means having a rotatable shaft carrying a gear member thereon, said gear member engageable with at least one gear of a gear assembly disposed in a housing member of [such] said hand brake assembly for operating [such] said gear assembly

in [a] an application direction [which will cause an application of such at least one brake means]; and

(b) a means connected to said motor for starting said motor and thereby initiating an automatic application of [such at least one brake means by such] said hand brake assembly.
